

1 37229-65 EWT(1)/EWT(m)/EPF(c)/ENG(v)/EWP(j)/T/SEC(b)-2 Pe-4/Pe-5/Pr-4/PA-4
LJP(c) GC/RM

ACCESSION NR: AP5008379

8/0190/65/007/003/0546/0550

AUTHOR: Gromov, A. Ye.; Slutskev, A. I.

TITLE: Change in the supramolecular structure of crystallizing polymers on orientation

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 3, 1965, 546-550

TOPIC TAGS: supramolecular structure, crystallizing polymer, orientation, orientation mechanism

ABSTRACT: The change in the morphological forms (supramolecular structure) of crystallizing polymers on orientation stretching and the relationship between the initial and final oriented structures have been studied with high-pressure polyethylene and capron specimens. The study was conducted to arrive at a better understanding of the orientation mechanism of polymers. The specimens were oriented by stretching at different temperatures. Their supramolecular structures were determined from small angle x-ray diffraction data. It was shown that the supramolecular structures produced by orientation or reorientation under given conditions are independent of the initial polymer structure. At low stretching rates the quantitative characteristics describing the supramolecular structures are

Card 1/2

L 37729-65
ACCESSION NR: AP5008379

clearly defined by the temperature of stretching. The mechanism of rearrangements in polymers on orientation may involve the breakdown of the initial supramolecular structure followed by the formation of a stable fibrillar structure inherent in the oriented state. Orig. art. has: 4 figures. [BO]

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe AN SSSR (Physicotechnical Institute, AN SSSR)

SUBMITTED: 22Jun64

ENCL: 00

SUB CODE: QC, MT

NO REF SOV: 007

OTHER: 009

ATD PRESS: 3224

Card 2/2 bo

L 69139-65 Ent(a)/EPF(c)/ESG(v)/ESP(j)/T- Pe-4/Pe-5/Pr-4 JAJ/RM

ACCESSION NR: AP5016507

UR/0190/65/007/006/1041/1044

678.01:53+678.675

AUTHORS: Zhurkov, S. N.; Marikhin, V. A.; Myasnikova, L. P.; Slutsker, A. I.

TITLE: Electron microscopic study of the orientation of polycapramide

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 6, 1965, 1041-1044, insert facing p. 1042, and top half of insert facing p. 1043

TOPIC TAGS: electronmicroscopy, polycapramide, polymer, tensile strength, tensile stress, resin, caprone / JEM 5Y electron microscope

ABSTRACT: The transformation of the original spherulite structure of caprone into an oriented structure was studied in order to elucidate the disorder → order processes in polymers subjected to a longitudinal stress. The polymer studied was caprone (polycaprolactam) prepared from a solution of caprone in formic acid. The investigation was carried out on an electron microscope of type JEM-5Y. The specimens were elongated at room temperature to 35, 75, and 230% of their original length. The direction of elongation on the electron microscope photographs was determined after S. N. Zhurkov, V. A. Marikhin, L. P. Romankova, and A. I. Slutsker (Vysokomolek. soyed., 4, 2821, 1962). On the basis of electron

Card 1/2

L 50139-65

ACCESSION NR: AP5016507

microscope pictures it is concluded that during elongation of the specimen the spherulite structure breaks down and a new fibrillar structure is generated which gradually spreads out over the bulk of the polymer. Orig. art. has: 3 photographs and 1 illustration.

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe (Physico-Technical Institute)

SUBMITTED: 20Jul64

ENCL: 00

SUB CODE: EG,OC

NO REF Sov: 007

OTHER: 007

YL
Card 2/2

SLUTSKER, A.I., kand. fiz.-matem. nauk

Durability and time. Priroda 54 no.8:36-42 Ag '65.

(MIRA 18:8)

1. Fiziko-tehnicheskiy institut im. A.F. Ioffe AN SSSR, Leningrad.

L 35902-56 EAT(m)/ENP(w)/T/ENP(t)/ETI IJP(c) ID/IH
 ACC NR: AP6007352 SOURCE CODE: UR/0126/66/021/002/0248/0251

AUTHORS: Zhurkov, S. N.; Betekhtin, V. I.; Petrov, A. I.; Slutsker, A. I.

ORG: Physico-Technical Institute im. A. F. Ioffe (Fiziko-tehnicheskiy institut)

TITLE: Strength of aluminum at low temperature and disorientation of blocks

SOURCE: Fizika metallov i metallovedeniye, v. ²¹₁₄, no. 2, 1966, 248-251

TOPIC TAGS: aluminum, x ray spectroscopy, crystal lattice, tensile strength,
Rupture strength

ABSTRACT: An x-ray analysis of ruptured aluminum specimens, broken at -180°C, was carried out. The study was undertaken to determine the reasons for the deviation of the experimentally determined destruction time τ from that calculated from the relationship

$$\tau = \tau_0 e^{\left(\frac{U_0 - \gamma\sigma}{RT}\right)},$$

where U_0 , τ_0 and γ are characteristic constants of the material, σ is the applied stress, R is the gas constant, and T is the absolute temperature. The experimental procedure followed is described by A. I. Slutsker and Ye. A. Yegorov (PTE, 1959, 5, 89). The experimental results are presented graphically (see Fig. 1). It is concluded that the deviation of τ from the theoretical expression is caused by the variation in γ . The variation in γ is believed to be caused by a disorientation of blocks in the aluminum specimens.

UDC: 539.292:539.4

Card 1/2

L 35902-66

ACC NR: AP6007352

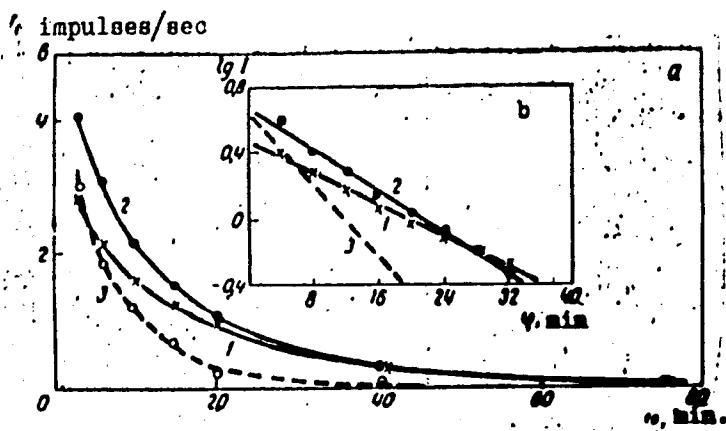


Fig. 1. Dependence of the scattering intensity on the scattering angle for aluminum specimens, ruptured at different conditions.
1 - $T = -180^\circ\text{C}$, $\sigma = 11 \text{ kg/mm}^2$; 2 - $T = -180^\circ\text{C}$, $\sigma = 16 \text{ kg/mm}^2$; 3 - $T = 18--200^\circ\text{C}$, $\sigma = 1.6--4.5 \text{ kg/mm}^2$.

Orig. art. has: 2 tables and 2 graphs.

SUB CODE: 11/ SUEM DATE: 17Feb65/ ORIG REF: 012/ OTM REF: 004

Cord 2/2

L 23029-66 EWT(1)/EWT(m)/T/EWP(t) IJP(c) JD/LHB/GO

ACC NR: AP6009658

SOURCE CODE: UR/0181/66/008/003/0767/0773
53
52
X3

AUTHORS: Betekhtin, V. I.; Slutsker, A. I.

ORG: Physicotechnical Institute im. A. F. Ioffe AN SSSR, Leningrad
(Fiziko-tehnicheskiy institut AN SSSR)

TITLE: Scattering of x-rays at small angles by the mosaic structure
of metals 18

SOURCE: Fizika tverdogo tela, v. 8, no. 3, 1966, 767-773

TOPIC TAGS: x ray scattering, grain structure, metallographic examination, small angle scattering, crystal lattice distortion, crystal dislocation 21

ABSTRACT: With an aim at obtaining more reliable estimates of the degree of disorientation of mosaic blocks, connected with the dislocation distribution density in block boundaries, the authors derive a more rigorous expression for the angular distribution of the intensity of x-rays scattered by such blocks at small angles. The calculation is carried out for the case of intragrain double reflections 21

Card

1/3

L 23029-66

ACC NR: AP6009658

(i.e., both reflecting blocks belonging to a single grain), with each grain regarded as an aggregate of blocks with orientations distributed about a certain direction in the grain. The block distribution is assumed to be fairly narrow and Gaussian. The polycrystalline volume exposed to the primary x-radiation is assumed to contain a large number of randomly oriented grains. A more accurate relation is obtained between the small-angle scattering and the block-orientation distribution function. The contribution of the microscopic distortions of the crystalline lattice and of the block dimensions to the small-angle scattering is determined. A special small-angle setup with a broad x-ray beam, described elsewhere (PTE No. 6, 89, 1959) was used, and the broadening due to the microscopic distortions and to the block dimensions was measured with a standard apparatus (URS-501). The results are used to determine the parameter of the Gaussian distribution of the block orientation and the average block disorientation angle. The connection between the block disorientation and dislocation characteristics, obtained on the basis of this method, agrees with that obtained by others, so that the method employed can be used to estimate reliably the degree of disorientation of the block and can be used successfully to analyze the dislocation structure of

Card

2/3

L 23029-66

ACC NR: AP6009658

metals. The author thanks S. N. Zhurkov for guidance, continuous attention, and interest in the work. Orig. art. has: 3 figures, 5 formulas, and 2 tables.

SUB CODE: 20/ SUBM DATE: 23Jul65/ ORIG REF: 008/ OTH REF: 011

Card

3/3 *pla*

SLUTSKER, G.S. (Moskva)

Use of a machine in deriving all appropriate variants of the
syntactic analysis of texts. Probl. kib. no.10:215-225 '63.
(MIRA 18:4)

VASIL'YEV, Nikolay Nikolaevich; et al., eds.

[New small-sized power tools] Novyi mekhanizirovannyi
malogabaritnyi instrument. Leningrad, 196... 13 p.
(MFA 12:1)

KUZNETSOV, B., inzh.; SLUTSKER, Ya., inzh.

The 2 STSN-6 and STSP-6 sugar beet precision planters. Trakt. i
sel'khozmash. 33 no.8:38-40 Ag '63. (MIRA 16:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyast-
vennogo mashinostroyeniya (for Kuznetsov). 2. Spetsial'noye kon-
struktorskoye byuro zavoda "Krasnaya zvezda" (for Slutsker).

SLUTSKER, Ya.I., inzh.; KUZNETSOV, B.F., inzh.

Precision beet-seed planter. Mashinostroenie no.3:96-98
(MIRA 16:7)
My-Je '63.

1. Zavod "Krasnaya zvezda", g. Korovograd (for Slutsker).
2. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyaystvennogo mashinostroyeniya (for Kuznetsov).
(Planters(Agricultural machinery))

MERENKOV, Boris Yakovlevich; PETROV, B.P., otvetstvennyy red.; SLUTSKER, A.S.;
RYLINA, Yu.V., tekhn.red..

[Genesis of chrysotile-asbestos] Genetika khrizotil asbesta. Moskva,
Izdat. Akad. nauk SSSR. 1958. 134 p. (Akademia nauk SSSR. Institut
geologii rudnykh mestorozhdenii, petrografii, mineralogii i geokhimii.
Trudy no.22) (MIRA 11:7)

(Chrysotile) (Asbestos)

GALKINA, K.A., kand.med.nauk; TKACHEV, V.V., gornyy inzhener; KOSSOV, P.A.;
VARFOLOMEYEV, G.S.; SLUTSKER, A.S.

Effectiveness of settling dust with mist sprayers during
blasting operations. Bor'ba s sil. 142-146 '62. (MIRA 16:5)

1. Institut gigiyeny truda i professional'nykh zabolеваний
AMN SSSR.
(Mine dusts--Prevention) (Blasting)

SLUTSKER, G.P., khimik-analitik

Determination of prosteigmine. Apt.delo 6 no.2:69 Mr-ap '57.
(MLRA 10:6)

1. Iz Rostovskoy oblastnoy kontrol'no-analiticheskoy laboratorii
(PROSTIGMINE)

SLUTSKER, G.P.

Quantitative determination of dimedrol, pentoxylin and ethazole.
Apt. de lo 7 no. 5:67-68 S-O '58 (MIRA 11:10)
(DIPHENHYDRAMINE)
(URACIL)
(THIDIAZOLE)

SLUTSKER, I.B., inzhener.

Fixing diamonds in mandrels. Stan.1 instr. 18 no.9:25 S '47.
(MLRA 9:1)

1.Zaved "Elektrik".
(Diamonds, Industrial) (Grinding wheels)

SLUTSKER, I.B.

112-2-3570
Translation from: Referativnyy Zhurnal, Elektrotehnika, 1957,
Nr 2, p.154 (USSR)

AUTHOR: Slutsker, I.B.

TITLE: Combination Dies for Stamping Electric-Tea-Kettle
Bodies (Sovmeshchennyye shtampy dlya izgotovleniya
korpusa elektricheskogo chaynika)

PERIODICAL: Sb. rats. predlozh. M-vo elektrotekhn. prom-sti SSSR,
1956, Nr 6 (64), pp.23-24

ABSTRACT: At the "Elektrik" plant; the fabrication of electric-
tea-kettle bodies used to require nine operations. Thanks
to the utilization of two combination dies, the labor
consumption in stamping has been reduced by almost
75 per cent.

P.B.D.

Card 1/1

SID TAKHLI, V. A.

Vegetable Gardening

"Vegetable gardening journal." Reviewed by A. YA. Gutsovich, Z. A. Slutsker. Ed. 1 pg no. 1, 1952.

Monthly List of Russian Accessions. Library of Congress, June 1952. UNCLASSIFIED.

AID P - 4573

Subject : USSR/Aeronautics - training
Card 1/1 Pub. 135 - 8/23
Authors : Korsakov, S. I., Lt.-Col. and L. B. Slutsker, Lt.-Col.
Title : Navigational safeguarding of takeoffs and landings of fighters under complex meteorological conditions.
Periodical : Vest. vozd. flota, 2, 44-49, F 1956
Abstract : The authors discuss the methods and control systems for climbing and descending through clouds, for assembly and break up of formations under adverse weather conditions and the procedure of approaching the runway. One graph, 3 sketches.
Institution : None
Submitted : No date

86-58-4-13/27

Radar in Aerial Gunnery (Cont.)

not more than 150-200 m. This method of checking the maneuver of a fighter plane can be used also during the first training flights for interception of unlighted aerial targets on bright nights as well as at twilight. Three diagrams.

AVAILABLE: Library of Congress

- 1. Pilots - Training
- 2. Aerial gunnery - Training devices
- 3. Radar (Airborne) - Applications

Card 2/2

SLUTSKII, N. A.

"Equipment for Measuring the Noise Level at a Broadcasting Station." Vest. Svyazi - Elektrosvyaz, No. 6, 1948. Enr.

SLUTSKER M. N.

25152. SLUTSKER, M. N. Uspekhi Geroya Sotsialisticheskogo Truda A. Ye. Lyuskovoy. (Svinarka I Zav. Svinovod Cheskoy Fermoy Kolkhoza (Budennoetsa) Mezhdurech. Rayon Uologod. Obl.) Sots Zhivotnovodstvo, 1949, №. 3. S. 17-21

S. Portr.

So: Letopis' №. 23, 1949

1. SLUTSKER M. N.
2. USSR (600)
4. Stock and Stockbreeding
7. Introduction of scientific achievements and progressive practice on livestock farms.
Sov. zootekh. 7 no. 11: N '52
9. Monthly List of Russian Accessions, Library of Congress, Feb. 1953. Unclassified.

PETROV, N. I.; SLUTSKER, M. N.

Calves

Raising calves on the better farms. Sots.zhiv. 14 no. 9, 1952

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

SLUTSKER, M.S., inzh.

Means for saving metals in machine shops using automatic machinery.
Mashinostroitel' no.9:37-38 8 '57. (MLRA 10:9)

1. Gor'kovskiy avtozavod.
(Machine-shop practice)

SLUTSKER, M.S.

Introducing the advanced method for conveying parts in packs
at the Gorkiy Automobile Plant. Avt.prom. 27 no.10:1-3 0 '61.
(MIRA 14:10)

1. Gor'kovskiy avtozavod.
(Gorkiy—Automobile industry)
(Gorkiy—Materials handling)

SLUTSKER, M.S.

Mechanization of conveying and storage operations. Avt.prom.
28 no.10:3-4 O '62. (MIRA 15:9)

1. Gor'kovskiy avtozavod.
(Materials handling--Equipment and supplies)

SLUTSKER, M.S.

Further mechanization of conveying and storing operations at the
Gorkiy Automobile Plant. Avt.prom. 29 no.10:4-6 O '63.
(MIRA 16:10)

1. Gor'kovskiy avtozavod.

SLUTSKER, M.S.

Mechanization of intrafactory storerooms. Mashinostroyitel' no.3:6-
8 Mr '65. (MIRA 18:4)

SLUTSKER, N.M., inzh. (g. Zhdanov)

R75 rails made at rolling mills. Put' i put. khoz. no. 8:8-10
(MIRA 11:8)
Ag '58.

(Railroads--Rails)

SLUTSKER, O. D.

A material for models for the photoelastic method of stress analysis.
N. I. Trigorovskii, A. K. Preiss, and O. D. Slutsker. Zavodskaya Lab.
15, 330-8 (1949).--Reflux 1 kg. of PhOH, 2 kg. of 40% formalin, 25 g. of
 $(COOH)_2$ and 0.5 kg. of EtOH on a 300-350° sand bath for ~1.5 hrs. The
resin is allowed to settle for 20 hrs., and then dried by boiling at
105-130° for 1 hr. The material is then cast into forms and polymerized
to the desired hardness. Methods of testing optical and mech. properties
are given.

Cyrus Feldman

GERLOVIN, Lazar' Izrailevich; SLUTSKER, Semen Moiseyevich; YENIN,
V.I., kand. tekhn. nauk, retsenzent; KHAVKIN, A.Ye., inzh.,
retsenzent; NIKONOV, A.A., nauchnyy red.; NIKITINA, R.D.,
red.; SHISHKOVA, L.M., tekhn. red.

[Marine waste heat and combination boilers] Sudovye utiliza-
tsionnye i kombinirovannye kotly. Leningrad, Sudpromgiz,
1962. 250 p. (MIRA 15:8)
(Boilers, Marine) (Heat regenerators)

GROSSMAN, R.I., kandidat tekhnicheskikh nauk; KOLPIKOV, N.V., mladshiy nauchnyy sotrudnik; SLUTSKER, Ya.I.

SUL-48 combined flax and fertilizer drill. Sel'khozmashina no.11:
3-7 N '56. (MLRA 9:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyaystvennogo mashinostroyeniya (for Kolpikov). 2. Mukovoditel' gruppy Spetsial'nogo konstruktorskogo byuro zavoda "Krasnaya zvezda" (for Slutsker).
(Drill (Agricultural implement)) (Flax)

NABUTOVSKIY, V.M.; SLUTSKIN, A.A.

Movement of quasi-particles with an arbitrary law of dispersion in weak nonuniform magnetic fields. Fiz. met. i metalloved. 12 no.2:170-175 Ag '61. (MIRA 14:9)

1. Institut teplofiziki Sibirskogo otdeleniya AN SSSR i
Fiziko-tehnicheskiy institut AM USSR.
(Particles (Nuclear physics))
(Dispersion)

LIFSHITS, I.M.; SLUTSKIN, A.A.; NABUTOVSKIY, V.M.

Characteristics of the motion of charged quasi-particles in a
variable and inhomogeneous electromagnetic field. Zhur.eksp.i
teor.fiz. 41 no.3:939-948 S '61. (MIRA 14:10)

1. Fiziko-tehnicheskij institut AN USSR.
(Dynamics of a particle)

21560

S/020/61/137/003/009/030
B104/B214**24,7700(1144,1160,1469)**AUTHORS: Livshits, I. M., Corresponding Member of the AS USSR,
Slutskin, A. A., and Nabutovskiy, V. M.TITLE: Scattering effect of charged quasi-particles at singular
points in the p-space

PERIODICAL: Doklady Akademii nauk SSSR, v. 137, no. 3, 1961, 553-556

TEXT: The kinetic and resonance properties of metals and semiconductors
are related to the dynamics of quasiparticles such as conduction carriers.
This scattering effect of the quasi-particles is studied which is
connected with the singularities of the dispersion law and not with the
existence of a scattering center of force. In the presence of a magnetic
field varying slowly in space and time or a weak longitudinal electric
field the parameters ϵ (particle energy) and p_H (projection of the momen-
tum in the direction of the magnetic field) are not constant. However,
 p_H and ϵ vary sufficiently slowly to allow the motion in the p-space

Card 1/5

Scattering effect of charged ...

21560

S/020/61/137/003/009/030
B104/B214

to be described as drift, rotation, and deformation of the "current petal". The motion of the particles in the \vec{r} -space can be represented as rapid oscillation about the "center of circle" \vec{R} and smooth displacement of this center in the direction of the magnetic field. The following relation holds here: $\vec{R} = \bar{v}_H \vec{\xi}$, where $\vec{\xi} = \vec{H}/H$, $\vec{H} = \vec{H}(\vec{R}, t)$.

The mean velocity \bar{v}_H is determined by the formula:

$v_H(P_H, \bar{\epsilon}, \vec{\xi}) = -\frac{1}{2\pi m^*} \frac{\partial S}{\partial P_H}(P_H, \bar{\epsilon}, \vec{\xi})$. Here, S is the area of cross section $\epsilon = \bar{\epsilon}$, $P_H = P_{\bar{H}}$. The mean values $P_H = \bar{P}_H$, $\bar{\epsilon}$, and the unit

vector $\vec{\xi}$ of the magnetic field give the position of the "current petal" in the momentum space. The most important characteristic of the average motion in the above mentioned type of field is the adiabatic invariance of the quantity $S(P_H, \bar{\epsilon}, \vec{\xi})/H(\vec{R}, T)$ which allows the mean differential equation to be partially integrated. For a complete knowledge of the motion it is necessary to know the equation for the quantities

Card 2/5

21560

Scattering effect of charged...

S/020/61/137/003/009/030
B104/B214

P_H or $\tilde{\epsilon}$. In the following these equations are introduced for three forms of the field: 1) For a weak homogeneous constant magnetic field this equation reads: $\dot{\epsilon} = \text{const.}$ 2) For the case of parallel electric and magnetic fields: $\dot{P}_H = eE$. 3) If an alternating field $H(t)$ acts on the particle the resulting electric field has to be taken into account which leads to a nonconservation of $\tilde{\epsilon}$. In that case: $\dot{P}_H = \frac{1}{m^2} \frac{\partial}{\partial \epsilon} \iint \tilde{P}_I dS$,

where \tilde{P}_I is the projection of the momentum on a plane perpendicular to $\tilde{\epsilon}$. With the help of these equations the drift of the "current petal" is studied by the saddle point of the isoenergetic surface (Fig. 1). From a short consideration it is shown that the introduction of a particle in the region I and II may be considered as a random process. It is therefore, possible to speak of a scattering in the neighborhood of the saddle point which is a singular point in the sense of the dynamics of the motion of a particle in a homogeneous magnetic field. The scattering probabilities w_1 and w_2 in the regions I and II possess fully defined

Card 3/5

Scattering effect of charged...

21560

S/020/61/137/003/009/030
P104/B214

values which are determined in the following. For the case (1) mentioned above the ratio of the probabilities is given by

$w_1/w_2 = \frac{\partial}{\partial l} (S_1/H) / \frac{\partial}{\partial l} (S_2/H)$. Here, l is the length along the lines of force of the magnetic field, $S_{1,2}(\varepsilon, b_H(\vec{f}), \vec{f})$ is the area of cross section of each curve at the intersection of $\varepsilon = \text{const}$ with the surface passing through the singular points and perpendicular to $\vec{f}(l)$. For the case (2): $w_1/w_2 = \frac{d}{dp_H} S_1(p_H, \varepsilon_{cr}(p_H)) / \frac{d}{dp_H} S_2(p_H, \varepsilon_{cr}(p_H))$, where $\varepsilon_{cr}(p_H)$ is defined on the isoenergetic surface $\varepsilon = \varepsilon_{cr}(p_H)$ which contains the singular point for a given p_H . It is found further that the time of drift through the singular point is about $Tln\alpha$. Therefore, for the realization of this effect it is necessary that the inequality $\tau \gg Tln\alpha$ be satisfied. It is so for $H \sim 10^4$ oersteds and a path length $\gtrsim 0.1$ cm without requiring any practical limitation on the value of α .

Card 4/5

21560

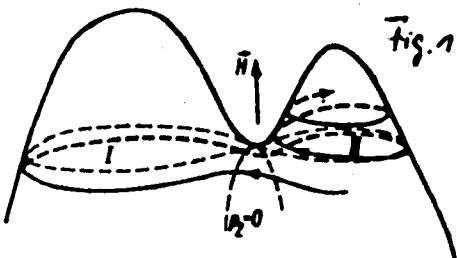
Scattering effect of charged...

S/020/61/137/003/009/030
B104/B214

In the classical considerations made here the tunnel effect is not taken into account. There are 1 figure and 1 Soviet-bloc reference.

ASSOCIATION: Fiziko-tehnicheskiy institut Akademii nauk USSR
(Institute of Physics and Technology, Academy of Sciences UkrSSR).
Institut teplofiziki Sibirskogo otdeleniya Akademii nauk SSSR (Institute of Heat Physics of the Siberian Department of the Academy of Sciences USSR)

SUBMITTED: January 2, 1961



Card 5/5

44136
S/056/62/043/004/044/061
3125/3186

24.7700

AUTHORS: Lifshits, I. M., Azbel', M. Ya., Slutskin, A. A.
 TITLE: The theory of quantum cyclotron resonance in metals
 PERIODICAL: Zhurnal eksperimental'nyy i teoreticheskoy fiziki, v. 43,
 no. 4(10), 1962, 1464-1478

TEXT: A theory of quantum cyclotron resonance in metals is constructed. The total current density is $\vec{j} = \vec{j}_1 + \vec{j}_2$. \vec{j}_1 is caused by the electrons colliding with the surface, \vec{j}_2 by the non-colliding electrons. The difference between the quantum and classical formulas of the first order with respect to $i\omega/\beta$. The quantum expression

$$j_1 = \frac{2e^2 H_0}{h^2 c} \sum_{n, l} \int_{-\infty}^{\infty} dp_z \frac{f_0(\epsilon_{n+l, p_z}) - f_0(\epsilon_{n, p_z})}{\epsilon_{n+l, p_z} - \epsilon_{n, p_z}} \frac{A_l(y, p_z)}{T^2(-i\omega + i\Omega + 1/\tau)}. \quad (2.4) \quad (2.4)$$

$$A_l(y, p_z) = \int_0^T dt v(t) u(y - r(t) - r_0) e^{-i\Omega t} \int_0^T dt' e^{i\Omega t'} v(t') E \left(y - \int_t^{t'} v'_t dt' \right).$$

Card 1/4

S/056/62/C43/004/044/061
3125/3186

The theory of quantum cyclotron ...

for the surface impedance is rather a complicated function of λ . If the temperature is low enough and the relaxation times long enough, logarithmic quantum resonance occurs with a discrete frequency spectrum and with giant oscillations of the high frequency characteristics. These oscillations are periodic with respect to the inverse magnetic field. Their period differs from that of Einstein-de Haas-van Alfvén type oscillations. They afford evidence for the resonance at the discrete frequencies which occur as a result of the effective mass quantization in a strong magnetic field. Metals obey a complex dispersion law. The attenuation of the oscillation with increasing temperature is characterized by $\beta_0 = 2\pi^2 kT (\partial S / \partial \epsilon) / \sigma$. When $\beta_0 \approx 1$, these oscillations are proportional to $\exp(-\beta_0)$. Quantum resonance oscillations occur when $\beta_0 \sim 2\pi^2 kT / \hbar\omega \approx 1$. The vanishing of $(\partial S / \partial \Omega)_{\xi=0}$ at certain frequencies Ω (singular cross sections) facilitates the occurrence of quantum resonance oscillations. It can also lie near to one of the extremum frequencies of the Fermi surface, and the cyclotron resonance for the central cross section then differs greatly from the other cross sections of extremum frequency cross

Card 3/4

SLUTSKIN, A.A.

Motion of a one-dimensional nonlinear oscillator under adiabatic conditions. Zhur. eksp. i teor. fiz. 45 no.4:978-988 O '63.
(MIRA 16:11)
1. Fiziko-tehnicheskiy institut Akademii nauk Ukrainskoy SSR.

ACC NR: AP6031336

SOURCE CODE: UR/0386/66/004/003/0096/0099

AUTHOR: Slutskin, A. A.

46

45

B

ORG: Physicotechnical Institute, Academy of Sciences, Ukrainian SSR (Fiziko-
tekhnicheskiy institut Akademii nauk Ukrainskoy SSR)

TITLE: Concerning one method of analyzing magnetic breakdown in metals

SOURCE: Zh. eksper. i teoret. fiz. Pis'ma v redaktsiyu. Prilozheniya v. 4, no. 3,
1966, 96-99TOPIC TAGS: magnetic breakdown, tunnel effect, wave function, Schrodinger equation,
quantum physics

ABSTRACT: The author analyzes interband magnetic breakdown in metals by a method which yields simple analytic expressions for the breakdown probability and phase difference. In constructing the quantitative theory of magnetic breakdown, greatest attention is paid to the calculation of the probability of interband breakdown and the determination of the jump that occurs in the phase of the quasiclassical wave function when the electron goes from one trajectory to another. The equations derived are valid in the entire interval of magnetic-field variation. In accord with the presently held view concerning charged quasiparticles as the carriers of conductivity in metals, the analysis is carried out in terms of an arbitrary dispersion law and is valid for an arbitrary magnetic field. It is shown that the magnetic breakdown probability decreases with increasing angle between the magnetic field and the plane of closest approach.

Card 1/2

Card 2/2

1. $\text{EAP}(w) \rightarrow \text{EAP}(w)/\text{EAP}(w)$ (EAP(w) is a type of EAP)

ACC NR: AP6020222 SOURCE CODE: UR/005G/66/050/006/1649/1659

AUTHOR: Slutskin, A. A.; Sergeyeva, G. G.

ORG: Physicotechnical Institute, Academy of Sciences, Ukrainian SSR (Fiziko-technicheskiy institut akademii nauk Ukrainskoy SSR)

TITLE: Certain features of ultrasonic propagation in nonconducting crystals with impurities

SOURCE: Zh eksper i teor fiz, v. 50, no. 6, 1966, 1649-1659

TOPIC TAGS: ultrasonic wave propagation, low frequency, crystal lattice, critical wavelength, scattering amplitude, crystal impurity

ABSTRACT: Certain peculiarities of elastic-wave propagation due to quasi-local states in the low-frequency spectral range have been investigated for the case of substitution of a disordered solid solution with the concentration of $c \ll 1$. Propagation of elastic waves has been analyzed for substitution of an arbitrary impurity

Card 1/2

ACC NR: AP7007627

SOURCE CODE: UR/0386/67/005/003/0090/0093

AUTHOR: Slutskin, A. A.

ORG: none

TITLE: Conduction electrons with small effective masses

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniya, v. 5, no. 3, 1967, 90-93

TOPIC TAGS: quantum oscillation, magnetoresistance, galvanomagnetic effect, cyclotron resonance, conduction electron, metal property, electron spectrum

ABSTRACT: The author describes several effects that occur for all metals whose electronic spectrum satisfies the following two requirements: (1) Several groups of conduction electrons belonging to different energy bands correspond to the same energy ϵ . (2) A line of degeneracy points p_0 , at which $\epsilon_1(p_0) = \epsilon_2(p_0)$, exists in quasimomentum space (1 and 2 denote the numbers of the bands, and $\epsilon_{1,2}(p)$ are the dispersion laws). The effects are based on the vanishing of the effective mass and are shown to be related to certain symmetry properties of the crystal lattice of the metal. The degeneracy along the line of degeneracy points is stable and is not lifted at small lattice deformation. This explains why the so-called accidental degeneracy, which is not connected with the symmetry properties, is characteristic of many metals. The conditions under which quantum resonance oscillations and nonmonotonic behavior of the high-frequency impedance are observed, are examined in light of these phenomena. It

Card 1/2

ACC NR: AP7007627

is shown that these oscillations cannot be unambiguously interpreted at present, since a similar dependence of the impedance on the magnetic field may be due not only to quantum effects with small masses, but also to purely classical mechanisms. At any rate, observation of quantum cyclotron resonance in very weak magnetic fields becomes feasible on the basis of the results. The discussed effects can also serve as one method of observing degeneracy lines in the electron spectra of metals. The author thanks I. M. Lifshits for valuable discussions. Orig. art. has: 4 formulas.

SUB CODE: 20/

SUBM DATE: 02Nov66/ ORIG REF: 005

Card 2/2

ACC NR: AF/005345

SOURCE CODE: UR/0181/C/009/001/0184/0195

AUTHOR: Slutskin, A. A.; Kadigrobov, A. M.

ORG: Physicotechnical Institute, AN UkrSSR, Khar'kov (Fiziko-tehnicheskiy institut
AN UkrSSR)

TITLE: Contribution to the theory of interband magnetic breakdown in metals

SOURCE: Fizika tverdogo tela, v. 9, no. 1, 1967, 184-195

TOPIC TAGS: magnetic breakdown, electron energy, electron spectrum, tunnel effect,
dispersion equation, wave function

ABSTRACT: The problem of interband magnetic breakdown is solved for arbitrary values of the parameter γ_0 , which enters into the criterion $\gamma_0 \leq 1$ for observing interband breakdown. It is shown that allowance for the genesis of the energy spectrum of the electrons with small distances between bands, connected with the so-called "doubling of the period," makes it possible to investigate completely the interband tunnel effect in a constant and homogeneous magnetic field. The problem is solved in terms of an arbitrary dispersion law and an arbitrary value of the phenomenological parameter Δ , which characterizes the band splitting. A closed analytic relation is obtained for the dispersion law and for the wave functions of the electron as functions of the magnetic field H and the parameter Δ for all values of the probability W of the interband tunnel transition. The formula obtained for the interband magnetic breakdown probability W coincides in the extreme cases of weak and strong breakdown.

Card 1/2

ACC NR: A7005345

with the corresponding expressions given by E. I. Blount (Phys. Rev. v. 126, 1636, 1962) and A. B. Pippard (Phil. Trans. Roy. Soc. (London) v. 256, 317, 1964). The authors thank I. M. Lifshits and M. I. Kaganov for interest in the work and valuable discussion. Orig. art. has: 1 figure and 32 formulas.

SUB CODE: 20/ SUBM DATE 17Jun66/ ORIG REF: 004/ OTH REF: 006

Card 2/2

PA 28T39

SLUTSKIN, B. Z.

USSR/Engineering

Railroads

Radio Equipment

Jan 1947

"Prospect for the Use of Radio Communication on
Trains," B. Z. Slutskin, 3 pp

"Tekh Zheleznykh Dorog" No 1

The author gives a short history of the development of
radio communications on the railroads of the United
States, and asks why this could not be put into use
on Soviet Railways. Discusses the advantages of this
system and states that there is no reason why Russia
could not adopt a similar one.

BS

28T39

SLUTSKIN, G.G., inzhener; TITKOV, G.G., redaktor; DASHKOVA, Z.F., redaktor;
KOLESNIKOVA, A.P., tekhnicheskiy redaktor.

[Manual for the sawmill foreman] Spravochnik mastera lesosavoda.
(MIRA 9:6)
Moskva, Goslesbumizdat, 1955. 179 p.

1. Russia (1923- U.S.S.R.) Ministerstvo lesnoy promyshlennosti.
(Sawmills)

SLUTSKII, G.G.; TITKOV, G.G., red.; MEL'NIKOVA, M.S., red. izd-va;
GRECHISHCHEVA, V.I., tekhn. red.

[Brief manual on lumbering] Kratkii spravochnik po lesopileniu.
(MIRA 15:3)
Moskva, Goslesbumizdat, 1961. 326 p.
(Lumbering)

ZBROZHEK, V. [deceased]; SLUTSKIN, L., starshiy inzh.

Introducing automatic control of boilers on the steamer "Olonets."
Mor. flot 21 no.4:29-32 Ap '61. (MIRA 14:4)

1. Glavnyy konstruktor po avtomatike TSentral'nogo proyektno-konstruktorskogo byuro No.1 (for Zbrozhek).
(Boilers, Marine) (Automatic control)

ZEROZHEK, Vladimir Vatslavovich[deceased]; Prinimali uchastiye:
SLUTSKIN, L.A., inzh.; FADEYEV, V.I., inzh.; SHIFRIN, M.Sh.,
doktor tekhn. nauk, prof., retsenzent; ANTONOVICH, S.A., kand.
tekhn. nauk, retsenzent; GARBER, Ye.D., nauchnyy red.; NIKITINA,
R.D., red.; KRYAKOVA, D.M., tekhn. red.

[Automatic control of ship systems]Avtomatika sudovykh sistem.
Leningrad, Sudpromgiz, 1962. 145 p. (MIRA 15:10)
(Marine engineering) (Automatic control)

1A76T53

SLUTSKIN, L. S.

USSR/Medicine - Glaucoma, Diagnosis May/Jun 1948
Medicine - Diagnosis

"Comparative Appraisal of Some of the Methods of Early
Diagnosis of Glaucoma," L. Slutskin, Azerbaijan Sci
Res Clinical Inst, 4 pp

"Vest Oftalmol" Vol XXVII, No 3

Results of subject studies led to conclusion that not
one of the analyzed methods is reliable in diagnosing
early cases of glaucoma, and that only combination of
several methods permits correct diagnosis.

76T53

SLUTSKIN, L.S., kand.med.nauk

Pathogenesis and treatment of herpes of the cornea. Azerb.med.zhur.
(MIRA 12:1)
no.12:82-87 D '58

1. Iz Azerbaydzhanskogo nauchno-issledovatel'skogo oftal'molo-
gicheskogo instituta (direktor - N.Efendiyev).
(CORNIA--DISEASES)
(HERPES)

SLUTSKIN, L. Ye., poipol'sovnik meditsinskoy sluzhby; MUSKOVICH, I. S.,
... poipol'sovnik meditsinskoy sluzhby.

Experience in checking the barofunction of the ear in the
recompression chamber. Voen.-med. zhur. no. 1:60-61 Ja '66
(MIRA 19:1)

113-58-7-6/25

AUTHOR: Yecheistov, Yu.A., Candidate of Technical Sciences, and Slutskin, M.M.

TITLE: The Effect of the Arrangement of Controllable Wheels on the Road Resistance of the Automobile (Vliyaniye ustyanovki upravlyayemykh koles na soprotivleniye dvizheniyu avtomobilya)

PERIODICAL: Avtomobil'naya promyshlennost', 1958, Nr 7, pp 13-15 (USSR)

ABSTRACT: The angle of camber and tow-in of the front wheels of automobiles is an important factor on the wear of the tires and thus to the car's road resistance. Relevant calculations were confirmed by tests carried out in the Moscow Automechanical Institute by the authors. The results of tests on 5.00-16 tires put on a "Moskvich" car of model 400 - 420 at normal 1.8 kg/square cm tire pressure, a vertical load of 500 kg and 10 to 30 km/h motion speed, are shown on graph 5 and demonstrate that theoretical and experimental data must be obtained for various types of tires, to find the best possible angle of camber and tow-in for front wheels. There are 3 diagrams, 2 graphs, and 7 Soviet references.

Card 1/2

113-58-7-6/25

The Effect of the Arrangement of Controllable Wheels on the Road Resistance
of the Automobile

ASSOCIATION: Moskovskiy avtomechanicheskiy institut (The Moscow Auto-
mechanical Institute)

1. Automobile wheels--Performance 2. Automobile wheels--Test results

Card 2/2

SLUTSKIN, M.H.

Effect of divergence and convergence of front wheels on the
running up of the automobile. Avt.prom. no.12:19-20 D '60.
(MIRA 13:12)

1. Moskovskiy avtomekhanicheskiy institut.
(Automobiles--Dynamics)

GidOV, Georgiy Mikhaylovich, kand. tekhn. nauk; SLUTSKIN, N. M.,
kand. tekhn. nauk, ved. red.

[Mechanization and automation of the conveying of molding
materials and castings] Mekhanizatsiya i avtomatizatsiya
transportirovaniia formovochnykh materialov i otlivok. Mo-
skva, GOSINTI. 1964. 58 p. (Mekhanizatsiya i avtomatizatsiya
tekhnologicheskikh protsessov; materialy zavodskogo opyta,
no.9) (MIRA 18:3)

SLUTSKIN, M. M.

Cand Tech Sci - (diss) "Study of position angles of motor vehicle steering wheels." Moscow, 1961. 14 pp including cover; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Auto-Mechanics Inst, Chair "Motor Vehicles"); number of copies not given; price not given; (KL, 10-61 sup, 218)

ANAN'YEV, N.V.; SUDISKII, M.M., Zem. tekhn. nauk, red.

[Conveyers with program control and automatic labeling of products] Konveiery s programmnym upravleniem i avtomaticheskim adresovaniem izdelii. Moskva, Gos. nauchno-issl. in-t nauchn. i tekhn. informatsii, 1964. 25 p. (Mekhanizatsiya i avtomatizatsiya tekhnologicheskikh protsessov; materialy zavodskogo opyta, no.8) (MIRA 18:2)

SLUTSKII, N.I.; RYBAK, V.I., red.

[Physiological mechanism of the action of medicaments on the "similarity principle" (similia similibus curentur) in the light of the biological interference theory; scientific concept of "the natural physiological measure to fight a disease" as adopted by homeopathy] Fiziologicheskii mekhanizm deistviia lekarstvennykh veshchestv po "printspu podobia" (Similia similibus curentur) v svete teorii biologicheskoi interferentsii; "O prirodnoi fiziologicheskoi mere protiv bolezni," ispol'zuemoi gomeopatii (nauchnaia kontseptsiiia). Pod red. V.I.Rybaka. Moskva, Tsentral'noe gomeopaticheskoye poliklinika Mosoblzdravotdela, 1961. 12 p. (MIRA 15:3)

1. Glavnyy vrach tsentral'noy gomeopaticheskoy polikliniki Moskovskogo oblastnogo otdela zdravookhraneniya i Predsedatel' Moskovskogo Nauchno-meditsinskogo Obshchestva vrachey-gomeopatov (for Rybak). (HOMEOPATHY)

SLUTSKII, Naum Izrailevich; RYBAK, Vasiliy Ivanovich, red.

[Discorrelational-trophic determinative theory of cancer ;
dystrophic syndromes] Diskorreliatiatsionno-troficheskaiia de-
terminatsionnaia teoria rakovoи bolezni; distroficheskie
sindromy. Pod red. V.I.Rybaka. Moskva, 1961. 71 p.
(CANCER RESEARCH) (MIRA 15:2)

VASYUNINA, N.A.; BALANDIN, A.A.; KARZHEV, V.I.; RABINOVICH, B.Ya.;
CHEPICO, S.V.; GRIGORYAN, Ye.S.; SLUTSKIN, R.L.

Production of glycerol and glycols by hydrogenolysis of
xylitol. Khim.prom. no.2:82-86 F '62. (MIRA 15:2)

1. Institut organicheskoy khimii AN SSSR, Vsesoyuznyy nauchno-
issledovatel'skiy institut po pererabotke nefti i gaza i polu-
cheniyu iskusstvennogo zhidkogo topliva, i MONIIGS.

(Glycerol) (Glycols)
(Xylitol)

SLUTSKIN, R.L., referent

Production of glycerol in the U.S.S.R. (from "Chemical Age,"
no. 2213, 1961). Gidroliz.i lesokhim.prom. 15 no.3:32 '62.
(MIRA 15:5)
(United States--Glycerol)

SLUTSKIN, R. L.

Industrial use of saccharose (from "Lectures, monographs and reports" of the Royal Institute of Chemistry, London, no.5, 1960). Sakh. prom. 36 no.10:75-76 O '62. (MIRA 15:10)

(Sucrose—Industrial applications)
(Sugar industry—By-products)

SLUTSKIN, R.L.

Hydrolysis industry in Japan. Gidroliz. i lesokhim.prom. 16
no.3:31 '63. (MIRA 16:5)
(Japan--Chemistry, Technical)

SLUTSKIN, R.L.

Sorbite production in Canada. Gidroliz. i lesokhim.prom. 17
no.1:31-32 '64. (MIRA 17:4)

KAMENKOVICH, M. Yu.; SIUTAKIN, N.L.

Industry of wood-chemical products in the U.S.S.R. Gidrofiz. 4
lesokhim. prom. 17 no.4332 '64 (MIRA 17e7)

ZAMAKHOVSKIY, L.I.; PAVLOV, N.N.; BARABANOV, L.G.; SLUTSKIN, S.M.;
MINAYEV, I.A., inzhener.

Efficient work organization for spinners and bobbin removers. Tekst.
(MLRA 9:8)
prom. 16 no.6:16-21 Je '56.

1. Zaveduyushchiy normativno-issledovatel'skoy laboratoriyej Glav-
korda (for Slutskin).
(Spinning)

SLUTSKIN, S.M.

Determining the work load of bobbin removers. Tekst.prom.17 no.1:
9-10 Ja '57. (MLRA 10:2)

1. Zaveduyushchiy normativno-issledovatel'skoy laboratoriyej
Glavkorda.
(Spinning)

SLUTSKIN, S.M.

Regulate work organization and wages for workers in charge of
cleaning the machinery. Tekst. prom. 17 no.8:49-50 Ag '57.
(Textile machinery--Maintenance and repair) (MLRA 10:9)
(Wages)

SLUTSKIN, S.

Make greater use of well-grounded labor norms in the textile industry. Sots. trud. no.9:92-97 '58. (MIRA 11:10)
(Textile industry--Production standards)

SLUTSKIN, S.M.

Research practices in a work conditions and norms laboratory. Tekst.
prom. 18 no.3:55-56 Mr '58. (MIRA 11:3)

1. Zaveduyushchiy normativno-issledovatel'skoy laboratoriye po trudu
na pryadil'no-tkatskom kombinat'e "Krasnoye znamya" v g. Ramenskoye
Moskovskoy oblasti.
(Textile workers) (Textile research)

MIRAYEV, I.A.; SLUTSKIN, S.M.

Technical norms for winding processes on the Hacoba automatic
weft winders. Tekst.prom. 19 no.4:12-16 Ap '59.
(MIRA 12:6)

(Spinning machinery)

SLUTSKIN, S.M.

New name for the method of inspection rounds of loom operations ("Statistical method of evaluation of the workload of common occupations" by K.Kutepova, G.Pobedinskii. Reviewed by S.M.Slutskin). Tekst.prom. 19 no.8:90-91 Ag '59.
(MIRA 13:1)

(Weaving) (Work measurement) (Kutepova, K.)
(Pobedinskii, G.)

GOLUBEV, N., kand.tekhn.nauk; STERLIN, Ye., kand.tekhn.nauk; FEOKTISTOV,
M.; BREKHOV, A.; SIMAKIN, V.; KOZLOVA, L., tkachikha;
NIKONOVA, K.; CHERTKOV, L.; SLUTSKIN, S.; MIHAYEV, I., inzh.

Introducing a new organization of work; letter to the
editor. Tekst.prom. 19 no.12:18 D '59. (MIRA 13:3)

1. Direktor Novo-Tkatskoy fabriki Glukhovskogo kombinata imeni
V.I.Lenina (for Feoktistov).
2. Zaveduyushchiy 1-y tkatskoy
fabrikoy kombinata "Voshd' proletariata" (for Brekhov).
3. Nachal'nik tkatskogo proizvodstva fabriki im.M.V.Frunze
(for Simakin).
4. Fabrika im. Frunze (for Kozlova, Nikonova).
5. Zaveduyushchiy normativno-issledovatel'skoy laboratoriye
po trudu fabriki im. M.V.Frunze (for Chertkov).
6. Zavedu-
shchiy normativno-issledovatel'skoy laboratoriye ramenskogo
kombinata "Krasnoye Znamya" (for Slutskin).
(Weaving)

SLUTSKIN, S.M.; SHKVARTSEV, A.A., dotsent

Determining the level of mechanization of the work in the
cotton industry. Tekst. prom. 23 no.6:8-11 Je '63.
(MIRA 16:7)

1. Nachal'nik nauchno-issledovatel'skoy laboratori khlop-
chatobumazhnogo kombinata "Krasnoye znamya" Moskovskogo
soveta narodnogo khozyaystva (for Slutskin). 2. Moskovskiy
tekstil'nyy institut (for Shkvartsev).

(Textile industry—Management)
(Cotton machinery)

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651410017-5

KUMLIEN, V. V.; SHIBAEV, S. N.

Discussion on norms in the section of the Scientific and Technical Society. Tekst, p. 25 no.1.:79-80 D 165. (GLRA 19:1)

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651410017-5"

BOGDANOV, Aleksey Vyacheslavovich; SLUTSKIN, Grigoriy Solomonovich;
MAMONTOV, V.G., inzh., ratsenzent; VICHEREVIN, A.Ye., inzh., red.;
DROZDOVA, N.D., tekhn. red.

[Prolonging the life of elements of the superstructure] Prodle-
nie sroka sluzhby elementov verkhnego stroenija puti; iz opyta
raboty perevodnykh kollektivov. Moskva, Transzheldorizdat, 1963.
ro p. (MIRA 16:5)

(Railroads--Maintenance and repair)

BRIL', R.Ya.; SLUTSKII, V.L.

Overall electrification and problem of the selection of
an effective form of energy for food preparation. Trudy
LIFI no.51:53-66 '64.

(MIFA 18:11)

SLUTSKIN, V.L.

Determination of the amount of generated power spent on preparation of food. Trudy LIEI no.51:82-88 '64.

Effect of different forms of energy used in food preparation on the economic effectiveness of dwellings.
Ibid.:129-135

(MIRA 18:11)

L 17323-63

EWT(1)/BDS/EED-2/EED(b)-3/EEO-2 AFFTC/ASD/APGC/IJP(C)/SSD

ACCESSION NR: AP3004906

S/0120/63/000/004/0132/0135

AUTHOR: Zhil'tsov, V. P.; Slutskin, Ye. Kh.63
62TITLE: Multichamber discharger as a circuit component of a strobotron in
high-speed photography

SOURCE: Pribory i tekhnika eksperimenta, no. 4, 1963, 132-135

TOPIC TAGS: discharger, multichamber discharger, strobotron, photography,
high-speed photography

ABSTRACT: The design, construction, and characteristics are described of a new device — a multichamber discharger — intended for switching heavy-current pulse circuits with a repetition rate of up to a few dozen kc. A stack of 25 disk aluminum electrodes is enclosed in a glass envelope filled with hydrogen at 1 atm; electric breakdown strength is 10 kv; an h-f pulse is used for firing. With the current amplitude of a few kiloamperes, the pulse duration is 0.5-3 microsec

Card 1/2

L 17323-63

ACCESSION NR: AP3004906

at 5-7 kv on the discharger. Light-flash oscillograms show that the discharger, although reducing somewhat the light-intensity amplitude, substantially cuts the flash duration. "The authors are thankful to V. A. Kalachev, V. P. Kirsanov, L. F. Lobov, and L. N. Pivovarov for their assistance in carrying out this work, and also to I. S. Marshak for initiating the work and his great interest in it." Orig. art. has: 4 figures.

ASSOCIATION: Moscovskiy elektrolampovy^y zavod (Moscow Electric-Lamp Factory)

SUBMITTED: 26Jul62

DATE ACQ: 28Aug63

ENCL: 00

SUB CODE: GE, PG

NO REF SOV: 001

OTHER: 003

Card 2/2

L 1D069-66

ACC NR: AT6001392

SOURCE CODE: UR/3180/64/009/000/0109/0114

AUTHOR: Kirsanov, V. P.; Zhil'tsov, V. P.; Marshak, I. S.; Razumtsev, V. F.; Slutskin, Ye. Kh.; Shchukin, L. I.

ORG: none

31
B+1

TITLE: New flash lamps with a high flash repetition frequency

SOURCE: AN SSSR. Komissiya po nauchnoy fotografii i kinematografii. Uspekhi nauchnoy fotografii, v. 9, 1964. Vysokoskorostnaya fotografiya i kinematografiya (High-speed photography and cinematography), 109-114 and inserts facing pages 112 and 113

TOPIC TAGS: flash lamp, gas discharge, hydrogen, xenon, nitrogen

ABSTRACT: The paper describes the design and performance characteristics of high-repetition-frequency sealed flash lamps for use in high speed photography. Two sources of frequently repeating flashes were considered: (1) a source for Toepler schlieren photographs with a maximum space stabilized luminous volume in the shape of a short filamentary segment; (2) a source for photographing objects in reflected light with maximum power and frequency of flashes. The first problem was solved most satisfactorily with a short capillary lamp. The second problem was solved with lamps having a large spherical bulb and a short discharge gap between the electrodes located inside the bulb. In addition, a rapidly deionizing multichamber hydrogen dis-

Card 1/2

L 11069-66

ACC NR: AT6001392

charger was constructed in order to provide for the commutation of the repeating high current discharges at the maximum frequencies at which the gas gaps of both types of flash lamps are unable to deionize and cannot themselves serve as the commutating element. Orig. art. has: 10 figures, 1 table.

SUB CODE: /3,20 SUBM DATE: 00/ ORIG REF: 004/ OTM REF: 001

Card 2/2

AGEYeva, A.N.; ARUTYUNOV, Ye.S.; SLUTSKINA, P.I.

Etiology, pathogenesis, and therapy of acute delirium. Zhur.
nevr. i psikh. 55 no.8:566-575 '55. (MLRA 8:10)

1. Psichiatricheskoye otdeleniye (i.o.zav. T.Ya.Khvilitzkiy)
Leningradskogo psikhonevrologicheskogo instituta imeni
V.M.Bektereva.
(DELIRIUM,
etio.,pathogen. & ther.)

KHVILIVITSKIY, T.Ya., SLUTSKINA, P.I., AVDASHEVA, L.P., AL'FER, Ye.G.
KATSMEL'SON, A.M., MIHALENKO, I.N.

Using durgs with opposing action in combined insulin therapy for
schizophrenia [with summary in French]. Zhur.nevr. i psikh. 28
no.9:1096-1105 '58 (MIRA 11:11)

1. Psikhonevrologicheskij institut imeni B.M. Bekhtereva (dir.
prof. V.N. Myasishchov) i 2-ya Leningradskaya psikhonevrologicheskaya
bol'nitsa (glavnnyy vrach T.I. Nikolayeva).

(SCHIZOPHRENIA, ther.

insulin shock, in assoc. with drugs with opposing
action (Rus))

(SHOCK, THERAPY INSULIN, in var. dis.

schizophrenia, in assoc with drugs with opposing
action (Rus))

SLUTSKINA, P.I.

Immediate effectiveness and late results of some variations of compound insulin therapy of schizophrenia. Sbor. trud. Len. nauchn. ob-va nevr. i psikh. no.6:235-246 '59. (MIRA 13:12)

1. Iz 1-y psichiatriceskoy kliniki (zav. T.Ya. Khvilivitskiy) Psichoneurologicheskogo instituta imeni V.M. Bekhtereva (direktor - chlen-korrespondent Akademii pedagogicheskikh nauk RSFSR prof. V.N. Myasishchev).

(INSULIN SHOCK THERAPY)
(SLEEP—THERAPEUTIC USE)

(SCHIZOPHRENIA)
(ELECTROTHERAPEUTICS)

KHV LIVITSKIY, T.Ya.; KOVSHULYA, V.S.; SLUTSKINA, P.I.

Directed change in reactivity in the treatment of mental patients with insulin and aminazine. Trudy Gos. nauch.-issledovatel'skiy psichonevr. inst. no.20:249-258 '59. (MIRA 14:1)

1. Gosudarstvennyy nauchno-issledovatel'skiy psichonevrологический institut imeni V.M. Bektereva, Leningrad.
(MENTAL ILLNESS) (INSULIN)
(CHLORPROMAZINE)

SLUTSKINA, P.I.; LEVTOVA, F.A.

Some experimental clinical data concerning the differentiation and treatment of hypochondriac states. Trudy Gos. nauch.-issl. psichonevr. inst. no.24:145-159 '61. (MIRA 15:5)

1. 2-oye psichiatricheskoye otdeleniye Gosudarstvennogo nauchno-issledovatel'skogo psichonevrologicheskogo instituta imeni Bekhtereva. (HYPOCHONDRIA)

SLUTSKINA, F.I.

Study on the role of emotional and other disorders of mental activity in the structure of defective and initial states of schizophrenia in the process of treatment. Vop. psikh. nevr. no.10:292-299 '64. (MIRA 18:12)

1. 1-ye psichiatricheskoye otdeleniye (zav. - prof. T.Ya. Khvilivitskiy) Leningradskogo nauchno-issledovatel'skogo psikhoneurologicheskogo instituta imeni V.M.Bekhtereva (direktor - B.A.Lobedev).

VOLODARSKII, Lev Markovich, doktor ekon. nauk; GLYAZER, I.S., red.;
SLUTSKINA, TS.S., mlad. red.

[Statistics and planning of the national economy] Statistika
i planirovanie narodnogo khoziaistva. Moskva, Ekonomika,
1964. 47 p. (Obsuzhdaem problemy sovershenstvovaniia plani-
rovaniia, no.7) (MIRA 17:11)

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651410017-5

147) and, in addition to other tasks, it has been charged
with the responsibility of, red.

[unclassified] and administrative training, which includes
those of the military, internal practices, [unclassified],
[unclassified]. [unclassified] problems, morphology and
[unclassified], etc.

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651410017-5"

KOSHUTA, Aleksanir Aleksandrovich; STEBUNOV, N.S., red.;
SLUTSKINA, TS.S., mlad. red.

[Determining prices for the products of machinery
manufacturing] Opredelenie tsen na produktsii mashino-
stroeniia. Moskva, Ekonomika, 1964. 75 p.
(MIRA 17:11)